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CLAIMS

1. A medicinal or pharmaceutical composition(s) for promoting the expression of a cell death-suppressing gene product Bcl-x<sub>L</sub>, comprising ginseng, its extracts, ginseng components, metabolites thereof or salts thereof.
2. A medicinal or pharmaceutical composition(s) for suppressing apoptosis or apoptosis-like cell death of cells comprising ginseng, its extracts, ginseng components, metabolites thereof or salts thereof.
3. The medicinal or pharmaceutical composition(s) according to claim 1 or claim 2 wherein the ginseng extracts are the extracts of medicinal ginseng.
4. The medicinal or pharmaceutical composition(s) according to claim 1 or claim 2 wherein the ginseng or its extracts are red ginseng powder or its extracts.
5. The medicinal or pharmaceutical composition(s) according to claim 1 or claim 2 wherein ginseng components, metabolites thereof or salts thereof are crude saponin fractions, non-saponin fractions, purified saponins, constituents of saponin fractions or salts thereof.
6. The medicinal or pharmaceutical composition(s) according to any one of claims 1 - 5 wherein tissues in promoting the expression of a cell death-suppressing gene product Bcl-x<sub>L</sub> are brain and nervous tissues or the spinal cord tissue.

7. The medicinal or pharmaceutical composition(s) according to any one of claims 1 - 5 wherein tissues in promoting the expression of a cell death-suppressing gene product Bcl-x<sub>L</sub> are the liver or the spleen.

8. The medicinal or pharmaceutical composition(s) according to any one of claims 2 - 5 wherein the cells are brain cells, nerve cells, neuronal stem cells, glial cells, vascular endothelial cells, vascular smooth muscle cells, hepatocytes, liver cells, Kupffer's cells, sinusoid endothelial cells, fibroblasts, biliary epithelial cells, lipocytes, lymphocytes, leukocytes, reticulum cells, macrophages or plasma cells.

9. The medicinal or pharmaceutical composition(s) according to any one of claims 2 - 5 comprising treating, preventing or curing diseases causing apoptosis or apoptosis-like cell death of cells.

10. The medicinal or pharmaceutical composition(s) according to any one of claims 1 - 5 comprising treating, preventing or curing brain and nervous diseases.

11. The medicinal or pharmaceutical composition(s) according to claim 10 wherein the brain and nervous diseases are cerebrovascular dementia, cerebral infarction or cerebral apoplexy.

12. The medicinal or pharmaceutical composition(s) according to any one of claims 1 - 11 comprising preparations for oral administration.

13. The medicinal or pharmaceutical composition(s) according to claim 12 wherein amount of administration for mammals is 1/6 - 1/2 g/kg in a day.
14. The medicinal or pharmaceutical composition(s) according to any one of claims 1 - 11 comprising preparations for intravenous administration.
15. The medicinal or pharmaceutical composition(s) according to claim 14 comprising preparations for single intravenous administration or for repetitive or continuous intravenous administration.
16. The medicinal or pharmaceutical composition(s) according to any one of claims 12 - 15 wherein the extracellular fluid concentrations of ginseng, its extracts, ginseng components, metabolites thereof or salts thereof in lesioned tissues are adjusted to 14.5 ng/ml or less.
17. A preparation(s) for intravenous administration according to claim 35 wherein the extracellular fluid concentrations of ginseng, its extracts, ginseng components, metabolites thereof or salts thereof in lesioned tissues are 1 - 1450 fg/ml or 1 - 145000 fg/ml.
18. A medicinal or pharmaceutical composition(s) for therapy, prevention or treatment of brain and nervous diseases comprising ginseng, its extracts, ginseng components, metabolites thereof or salts thereof.
19. The medicinal or pharmaceutical composition(s) according

to claim 18 wherein the ginseng extracts are the extracts of medicinal ginseng.

20. The medicinal or pharmaceutical composition(s) according to claim 18 wherein the ginseng or its extracts are red ginseng powder or its extracts.

21. The medicinal or pharmaceutical composition(s) according to claim 18 wherein the ginseng components, metabolites thereof or salts thereof are crude saponin fractions of ginseng, non-saponin fractions of ginseng, purified saponins in ginseng; constituents of saponin fractions or salts thereof.

22. The medicinal or pharmaceutical composition(s) according to claim 18 or claim 21 wherein the extracellular fluid concentrations of ginseng, its extracts, ginseng components, metabolites thereof or salts thereof in lesions are 14.5 ng/ml or less.

23. The medicinal or pharmaceutical composition(s) according to claim 22 wherein the concentrations of ginseng, its extracts, ginseng components, metabolites thereof or salts thereof are 1 - 1450 fg/ml or 1 - 145000 fg/ml.

24. The medicinal or pharmaceutical composition(s) according to any one of claims 18 - 23 comprising preparations for intravenous administration.

25. The medicinal or pharmaceutical composition(s) according to claim 24 comprising preparations for single intravenous administration or preparations for repetitive or continuous

intravenous administration.

26. The medicinal or pharmaceutical composition(s) according to any one of claims 18 - 25 wherein the brain and nervous diseases are diseases caused by injuries to nervous tissues or spinal cord tissues.

27. The medicinal or pharmaceutical composition(s) according to claim 26 wherein the diseases caused by injuries to nervous tissues or spinal cord tissues are spinal cord injuries..

28. The medicinal or pharmaceutical composition(s) according to claim 26 or claim 27 comprising improving paralysis of upper extremities or lower extremities.

29. The medicinal or pharmaceutical composition(s) according to claim 26 or claim 27 comprising improving urination disorder or dyschezia.

30. The medicinal or pharmaceutical composition(s) according to claim 26 or claim 27 comprising improving neurogenic bladder.

31. The medicinal or pharmaceutical composition(s) according to any one of claims 18 - 25 wherein the brain and nervous diseases are secondary degeneration of the nervous tissues.

32. The medicinal or pharmaceutical composition(s) according to any one of claims 18 - 25 wherein the brain and nervous diseases are trauma to the nervous tissues or the spinal cord tissues.

33. The medicinal or pharmaceutical composition(s) according to claim 32 wherein trauma is spinal cord injuries, neurotrauma

or head injuries.

34. The medicinal or pharmaceutical composition(s) according to any one of claims 18 - 25 wherein the brain and nervous diseases are diseases caused by apoptosis or apoptosis-like cell death of oligodendrocytes.

35. The medicinal or pharmaceutical composition(s) according to claim 34 wherein the diseases causing apoptosis or apoptosis-like cell death of oligodendrocytes are spinal cord injuries.

36. The medicinal or pharmaceutical composition(s) according to any one of claims 18 - 25 wherein the brain and nervous diseases are demyelination.

37. The medicinal or pharmaceutical composition(s) according to any one of claims 18 - 25 wherein the brain and nervous diseases are brain edema, brain and nervous tissue edema or spinal cord tissue edema.

38. The medicinal or pharmaceutical composition(s) according to claim 37 wherein diseases causing brain edema, brain and nervous tissue edema or spinal cord tissue edema are cerebral apoplexy, cerebral infarction, cerebral hemorrhage, subarachnoidal hemorrhage, head injuries, spinal cord injuries or neurotrauma.

39. The medicinal or pharmaceutical composition(s) according to any one of claims 18 - 25 wherein the brain and nervous diseases are spinal cord injuries, head injuries, neurotrauma,

cerebrovascular dementia, cerebral infarction, cerebral apoplexy or transient cerebral ischemic attack.

40. A medicinal or pharmaceutical composition(s) for therapy, prevention or treatment of cardiac diseases comprising ginseng, its extracts, ginseng components, metabolites thereof or salts thereof.

41. The medicinal or pharmaceutical composition(s) according to claim 40 wherein the cardiac diseases are accompanied with apoptosis of myocardial cells or apoptosis-like myocardial cell death.

42. The medicinal or pharmaceutical composition(s) according to claim 5 or claim 21 wherein any one of the constituents of saponin fractions of ginseng is ginsenoside Rb<sub>1</sub>.

43. A preparation(s) for intravenous administration comprising ginseng, its extracts, ginseng components, metabolites thereof or salts thereof.

44. The preparation(s) for intravenous administration according to claim 43 wherein the concentrations of ginseng, its extracts, ginseng components, metabolites thereof or salts thereof are low levels.

45. The preparation(s) for intravenous administration according to claim 44 wherein the extracellular fluid concentrations of ginseng, its extracts, ginseng components, metabolites thereof or salts thereof in lesioned tissues are adjusted to 1 ng/ml or less.

46. The preparation(s) for intravenous administration according to claim 45 wherein the extracellular fluid concentrations of ginseng, its extracts, ginseng components, metabolites thereof or salts thereof in the lesioned tissues are 1 - 100 fg/ml or 1 - 10000 fg/ml.

47. The preparation(s) for intravenous administration according to any one of claims 43 - 46 comprising treating, preventing or curing brain and nervous diseases.

48. The preparation(s) for intravenous administration according to claim 47 wherein the brain and nervous diseases are spinal cord injuries, head injuries, neurotrauma, cerebrovascular dementia, cerebral infarction, cerebral apoplexy or transient cerebral ischemic attack.

49. The preparation(s) for intravenous administration according to any one of claims 43 - 46 comprising treating, preventing or curing cardiac diseases.

50. The preparation(s) for intravenous administration according to claim 49 wherein the cardiac diseases are accompanied with apoptosis of myocardial cells or apoptosis-like myocardial cell death.

51. The preparation(s) for intravenous administration according to any one of claims 43 - 50 comprising preparations for single intravenous administration or preparations for repetitive or continuous intravenous administration.

52. A protective agent(s) for brain cells, nerve cells or